| | Type | L # | Hits | Search Text | DBs | Time Stamp |
|---|---|---|---|---|---|---|
| 1 | BRS | L1 | 654927 | (inhibit or inhibited or inhibiting or disable or disabled or disabling or prevent or prevented or preventing or prevention or lock or locked or locking or hold or holing or stop or stopped or stopping) near5 (motion or move or moving or feed or fed or feeding or advance or advanced or advancing) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:45 |
| 2 | BRS | L2 | 96449 | 1 near5 (substrate or platen or roll or roller or carriage or plate or bed or shelf or cylinder or belt or drum) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:45 |
| 3 | BRS | L3 | 20361 | 1 near5 (head or printhead or type) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:46 |
| 4 | BRS | L4 | 17247 | (2 or 3) near10 (paper or web or material or substrate or tape or strip or envelope or mailpiece or mail or item or piece) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:46 |
| 5 | BRS | L5 | 54170 | 1 near5 (paper or web or material or substrate or tape or strip or envelope or mailpiece or mail or item or piece) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:46 |
| 6 | BRS | L6 | 17804 | 5 near10 (substrate or platen or roll or roller or carriage or plate or bed or shelf or cylinder or belt or drum or head or printhead or type) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:47 |

| | Type | L # | Hits | Search Text | DBs | Time Stamp |
|---|---|---|---|---|---|---|
| 7 | BRS | L7 | 250383 | (print or printed or printing or impress or press or pressing or pressed or stamp or stamped or stamping) near5 (line or row or column or dot or matrix or character or letter or symbol) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:47 |
| 8 | BRS | L8 | 137 | (4 or 6) near10 7 Scanned Ti, Ab, Kwic all | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:48 |
| 9 | BRS | L9 | 654 | ("4168533" or "4813912" or "5508933" or "5166883" or "5608636" or "5408416" or "4872119" or "5848401" or "5122967" or "5200903" "0298775" or "298775" or "8305958" or "08305958").pn. or ((@pd<="19710101" not @pd<="19470101") and (101/71 or 101/66 or 101/93.09 or 101/93.24 or 101/93.25 or 101/212 or 400/279 or 400/283 or 400/292 or 400/303 or 400/306 or 400/306.2 or 400/307 or 400/545 or 705/408).ccls.) Scanned Ti all | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | 2005/01/10 14:52 |

| | Document ID | Issue Date | Inventor | Current OR | Current XRef | Pages |
|---|---|---|---|---|---|---|
| 1 | US 3644806 A | 19720222 | Belson; Ross A. et al. | 318/7 | 318/41; 318/59; 318/72; 361/244; 400/616.3 | 8 |
| 2 | US 3917048 A | 19751104 | Riley; Arthur F. | 400/616.1 | 226/153; 226/187; 226/195; 226/83; 400/616.2; 400/617; 400/618; 400/636 | 10 |
| 3 | JP 58042482 A | 19830311 | NUMATA, SHIGEKI | | | 5 |
| 4 | US 4971466 A | 19901120 | Kondo; Hiroatsu | 400/577 | 400/568; 400/575; 400/902 | 8 |

L8 results

| | Document ID | Issue Date | Inventor | Current OR | Current XRef | Pages |
|---|---|---|---|---|---|---|
| 1 | EP 298775 A2 | 19890111 | GILHAM, DENNIS THOMAS | | 705/400; 705/FOR.100 | 6 |
| 2 | US 5848401 A | 19981208 | Goldberg; Robert M. et al. | 705/408 | 101/71; 283/71; 346/143; 347/109; 347/2 | 15 |
| 3 | US 5608636 A | 19970304 | Guenther; Stephen | 705/408 | 101/71; 358/1.15 | 12 |
| 4 | US 5122967 A | 19920616 | Gilham; Dennis T. | 700/235 | 221/71; 705/401 | 7 |
| 5 | US 4872119 A | 19891003 | Kajimoto; Hironobu | 705/402 | 177/25.15; 705/407 | 29 |
| 6 | US 4168533 A | 19790918 | Schwartz; Leon J. | 705/403 | 101/91; 346/143; 346/2; 347/109; 347/2; 400/29; 400/88 | 23 |

L9 results

US-PAT-NO: 3644806
DOCUMENT-IDENTIFIER: US 3644806 A
TITLE: HIGH-SPEED PRINTER-PAPER FEED ENGINE
DATE-ISSUED: February 22, 1972
INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---|---|---|---|---|
| Belson; Ross A. | Natick | MA | N/A | N/A |
| Palombo; Gaston A. | Chelmsford | MA | N/A | N/A |

US-CL-CURRENT: 318/7, 318/41 , 318/59 , 318/72 , 361/244 , 400/616.3

ABSTRACT: A high-speed incremental web transport system especially suited for a high-speed printer application includes two motors with velocity feedback driven from a common controller in accordance with a computer originated movement request. Incremental position transducers allow precise repetitive spacing and positional stability of the motor shafts. Differential tension to be created during printing periods is obtained by controlling motor current. Synchronization control for skip-type movements prevents a buildup of positional error.
14 Claims, 5 Drawing figures
Number of Drawing Sheets: 2

---------- KWIC ---------

Brief Summary Text - BSTX (4): One traditional approach to computer print-outs has been to use a cylindrical rotating drum of type front above the paper, in conjunction with a set of selectively activated hammers behind the paper to strike the paper against a marking ribbon in order to impress the shape of the character on the drum upon the front of the paper. The rotating drums usually have one row for each character with the identical character in each hammer position. The drum is continually rotated at high speed. Selected print hammers are activated to print all like characters in a given line simultaneously. To prevent character smearing and to have different characters aligned, the paper must be stopped and held during the printing operation. Thus, the basic operation of the apparatus is to move the paper to a new line, stop, and retain the paper precisely in place while the type drum is allowed to revolve at least enough so that all desired characters have passed under the print hammers.

US-PAT-NO: 3917048
DOCUMENT-IDENTIFIER: US 3917048 A
TITLE: Synchronized line feed tensioning and gripping apparatus for printer
DATE-ISSUED: November 4, 1975
INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---|---|---|---|---|
| Riley; Arthur F. | Chicago | IL | N/A | N/A |

US-CL-CURRENT: 400/616.1, 226/153 , 226/187 , 226/195 , 226/83 , 400/616.2 , 400/617 , 400/618 , 400/636

ABSTRACT: A line feed tensioning and gripping apparatus, particularly adapted for use in conjunction with conventional tractor or sprocket line feed mechanisms, comprises a pair of specially contoured pinch cams, mounted on and driven by a drive shaft for the line feed mechanism, and a pair of associated pinch rollers which together cooperate to grip and firmly hold a perforated web after each successive line feed advancement thereof, in a precisely synchronized manner. The pinch rollers may also be pre-loaded so as to control the desired tension exerted on the paper during each successive line feed advancement thereof in a manner that ensures continuous and reliable feed pin-paper hole registration. The apparatus, with or without pre-loaded pinch rollers, also acts as a buffer and a momentary positive web drive between the line feed mechanism and the web supply so as to eliminate any tendency of the feed pins (or sprocket teeth) to tear the web at the start of each successive line feed.
13 Claims, 8 Drawing figures
Exemplary Claim Number: 10
Number of Drawing Sheets: 2

---------- KWIC ---------

Brief Summary Text - BSTX (18): All of the above described mechanisms, with variable degrees of success have reduced the tendency of line fed paper to tear or excessively jerk or jitter as a result of rapid successive line feed advancements thereof. However, such prior mechanisms have in no way incorporated apparatus, preferably synchronized with the line feed mechanism, to prevent the aforementioned problem of the paper shifting relative to the print head (or hammers) during line printing. Such displacement of the paper can readily result in misalignment of the imprinted characters along a given print line.

US-PAT-NO: 4971466
DOCUMENT-IDENTIFIER: US 4971466 A
**See image for Certificate of Correction**
TITLE: Printing apparatus having a rotatable member rotatable in incremental steps smaller than the pitch of a detent gear and including means for accurately retaining the rotatable member at a predetermined position when the detent mechanism is inoperable
DATE-ISSUED: November 20, 1990
INVENTOR-INFORMATION:

| NAME | CITY | STATE | ZIP CODE | COUNTRY |
|---|---|---|---|---|
| Kondo; Hiroatsu | Zushi | N/A | N/A | JP |

US-CL-CURRENT: 400/577, 400/568 , 400/575 , 400/902

ABSTRACT: There is described a printing apparatus in which line feed is achieved by rotating a platen with a paper advancing motor and the printing is conducted while the platen is stopped by the paper advancing motor. The printer is further provided with a detent mechanism for stopping the platen at the interval of a determined angle, and a solenoid for deactivating the function of the detent mechanism.
15 Claims, 6 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 3

---------- KWIC ---------

Abstract Text - ABTX (1): There is described a printing apparatus in which line feed is achieved by rotating a platen with a paper advancing motor and the printing is conducted while the platen is stopped by the paper advancing motor. The printer is further provided with a detent mechanism for stopping the platen at the interval of a determined angle, and a solenoid for deactivating the function of the detent mechanism.

PAT-NO: JP358042482A
DOCUMENT-IDENTIFIER: JP 58042482 A
TITLE: PRINTER FOR TICKET PAPER
PUBN-DATE: March 11, 1983
INVENTOR-INFORMATION:
NAME
NUMATA, SHIGEKI
INT-CL (IPC): B41J019/14, B41J003/10

ABSTRACT:

PURPOSE: To effectively print ticket paper in a manner that the longitudinal direction of the paper, e.g., periodical railroad thicket, etc., is positioned in parallel with the printing line by a method in which printing for line is made while feeding a ticket paper under the condition that a printing head is stopped and line feeding is made by moving the printing head.

CONSTITUTION: A wire dot type printing head 2 in which dots are aligned at a right angle to the feeding direction 1 of a ticket and an ink ribbon 3, etc., are mounted on a carrier 4, and the carrier 4 is positioned and stopped by a controller 24 at a place where detection signals are sent forth from a sensor 28, or the first printing line position. Then, printing is made while feeding a ticket paper 27 obtained by sending out a given amount of ticket paper 17 and cutting it in the direction of arrow 1 by rolls 13a and 13b driven by a step motor 15. After the printing of data for the first line, the printing head 2 is moved to the second line printing position by the step motor 8, and the ticket paper 27 is set back to the print starting position by reversely turning the step motor 15. Afterwards, printing for the second line is made. These operations are repeated to perform printing for given lines.

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|---|---|---|
| S1 | 241285 | (INHIBIT??? OR DISABL???? OR PREVENT??? OR PREVENTION OR LOCK???) (5N) (MOTION OR MOVE OR MOVING OR FEED OR FED OR FEEDING OR ADVANC???? OR HOLD??? OR STOP????) |
| S2 | 11945 | S1 (5N) (SUBSTRATE OR PLATEN OR ROLL OR ROLLER OR CARRIAGE OR PLATE OR BED OR SHELF OR CYLINDER OR BELT OR DRUM) |
| S3 | 3411 | S1 (5N) (HEAD OR PRINTHEAD OR TYPE) |
| S4 | 2010 | (S2 OR S3) (5N) (PAPER OR WEB OR MATERIAL OR SUBSTRATE OR TAPE OR STRIP OR ENVELOPE OR MAILPIECE OR MAIL OR ITEM OR PIECE) |
| S5 | 10171 | S1 (5N) (PAPER OR WEB OR MATERIAL OR SUBSTRATE OR TAPE OR STRIP OR ENVELOPE OR MAILPIECE OR MAIL OR ITEM OR PIECE) |
| S6 | 2553 | S5 (10N) (SUBSTRATE OR PLATEN OR ROLL OR ROLLER OR CARRIAGE OR PLATE OR BED OR SHELF OR CYLINDER OR BELT OR DRUM OR HEAD OR PRINTHEAD OR TYPE) |
| S7 | 472038 | (PRINT???? OR IMPRESS OR PRESS???? OR STAMP????) (5N) (LINE OR LINES OR ROWS OR ROW OR COLUMN OR COLUMNS OR DOT OR DOTS OR MATRIX OR CHARACTER?? OR LETTER?? OR SYMBOL??) |
| S8 | 12 | (S4 OR S6) (10N) S7 |
| S9 | 12 | RD S8 (unique items) |
| S10 | 258 | (S4 OR S6) AND S7 |
| S11 | 257 | RD S10 (unique items) [Scanned ti,pd,kwic all] |